

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/051573

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16L23/036 F16L37/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 28 33 866 A (MANNESMANN AG) 14 February 1980 (1980-02-14) claims 1,3 figure 1 page 3, paragraph 1 page 4, paragraph 6 page 5, paragraph 1 page 5, paragraph 3 - page 6, paragraph 1	1-3
X	DE 90 977 C (THE VACUUM BRAKE COMPANY LTD.) 8 April 1897 (1897-04-08) claim 1 figures 1-3 page 1	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

19 October 2004

Date of mailing of the international search report

02/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Jankowska, M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/051573

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 43 18 831 A (PUTZMEISTER MASCHF) 8 December 1994 (1994-12-08) claims 1,7 figure 2 column 1, line 3 - line 12 column 2, line 25 - line 31 column 2, line 65 - column 3, line 9 -----	1-3

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/051573

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 2833866	A	14-02-1980	DE 2833866 A1	14-02-1980
DE 90977	C		NONE	
DE 4318831	A	08-12-1994	DE 4318831 A1	08-12-1994